

राष्ट्रीय वनस्पति स्वास्थ्य प्रबंधन संस्थान
National Institute of Plant Health Management

<http://niphm.gov.in>

Promoting Plant Health Management
since 2008...

QUARTERLY

Volume: 8

Issue: 4

Plant Health

NEWS LETTER

OCTOBER - DECEMBER, 2018

Lead Article



Success stories

Special Event



Tailor made training for Uzbekistan officials

WHAT'S INSIDE

- 10-12 International training programs
- 13-18 National training programs
- 19-20 Off Campus training programs
- 21 Workshops
- 22-24 NIPHM Activities



महानिदेशक का संदेश

From the Director General's Desk

राष्ट्रीय वनस्पति स्वास्थ्य प्रबंधन संस्थान वनस्पति स्वास्थ्य प्रबंधन, जैवसुरक्षा एवं आक्रमण प्रबंधन तथा पीड़कनाशी प्रबंधन के क्षेत्र में एक प्रमुख क्षमता निर्माण संस्थान है। रावस्वाप्रसं ने भारत भर में 10,000 से अधिक अधिकारियों एवं 6,000 किसानों को विभिन्न क्षेत्रों जैसे : पादप जैवसुरक्षा, संगरोध, पादपस्वच्छता उपचारों, पारिस्थितिक अभियांत्रिकी, कृषि-पारिस्थितिक-तंत्र विश्लेषण, खेत स्तर पर जैव-ऊर्वरकों एवं जैव-पीड़नाशियों के उत्पादन करने, कीटनाशक अधिनियम, कीटनाशक सूत्रीकरण विश्लेषण, पीड़कनाशी अवशेष विश्लेषण एवं खाद्य सुरक्षा, प्रयोगशाला गुणता प्रणाली प्रबंधन, पीड़कनाशी उपकरण एवं छिड़काव हेतु उचित अभ्यासों, कशेरुकी पीड़कों आदि में प्रशिक्षण प्रदान किया है।

गत दस वर्षों के दौरान, रावस्वाप्रसं ने अपनी बुनियादी सुविधाओं को मजबूती प्रदान की है तथा एशियाई एवं अफ्रीकी देशों सहित विभिन्न अंशधारकों के लिए क्षमता निर्माण जरूरतों को पूरा करने हेतु प्रशिक्षण कार्यक्रमों को पुनर्विन्यासित किया है। हाल ही यूएसएआईडी द्वारा परिकल्पित एवं विदेश मंत्रालय, भारत सरकार द्वारा आयोजित फीड द फ्यूचर इंडिया ट्रायंगुलर प्रशिक्षण (एफटीएफ आईटीटी) सहित 24 प्रशिक्षण कार्यक्रमों के तहत 22 देशों से आये कुल 313 विदेशी सरकारी अधिकारियों को प्रशिक्षण दिया गया है।

अन्तर्राष्ट्रीय प्रतिभागियों ने रावस्वाप्रसं के उन्नत प्रौद्योगिकियों / विकसित तकनीकों / अभ्यासों की प्रशंसा की तथा उन्होंने इन उन्नत प्रौद्योगिकियों एवं प्रणालियों को अपनाकर अपने दैनंदिन कार्य क्रियाकलापों में सफलतापूर्वक क्रियान्वित किया है। उनके उत्साहपूर्ण प्रतिक्रिया एवं सीखे गए प्रौद्योगिकियों एवं प्रोटोकॉल के सफलतापूर्वक क्रियान्वयन करना यह आश्वसत करता है कि भविष्य में इस तरह के कार्यक्रमों में विदेशी प्रतिभागियों की सहभागिता बढ़ायी जाए।

National Institute of Plant Health Management is a premier capacity building institution in the field of Plant Health Management, Biosecurity and Incursion Management and Pesticide Management. NIPHM trained more than 10,000 officials and 6,000 farmers across India in various aspects pertaining to Plant Biosecurity, Quarantine, Phytosanitary treatments, Ecological Engineering, Agro Ecosystem Analysis, On-Farm production of Bio-fertilizers and Bio-pesticides, Insecticide act, Pesticide formulation analysis, pesticide residue analysis and food safety, Laboratory quality system management, pesticide application and good spraying practices, vertebrate pests etc.

During last ten years, NIPHM has strengthened its infrastructure facilities and reoriented the training programmes to address the capacity building requirement of various stake holders, including Asian and African countries. A total of 313 foreign government officials from 22 countries were trained through 24 training programs including the recently organised trainings on Feed The Future India Triangular Training (FTF ITT) designed by USAID and Ministry of External Affairs (MEA), Government of India.

The international participants appreciated and imbibed technologies / techniques developed/ practiced by NIPHM and successfully implemented thereafter in their day to day job activities. Their enthusiastic response and successful implementation of the learned technologies and protocols assures the increased future foreign participation in such programmes.

Sd/-
(G. Jayalakshmi, IAS)
Director General

A One-stop Destination for Capacity Building of Asian and African Officials on Plant Health Management and Biosecurity

G. Jayalakshmi, IAS, Director General

Introduction:

National Institute of Plant Health Management (NIPHM) is an autonomous Institute under the administrative control of the Department of Agriculture, Cooperation and Farmers Welfare, Ministry of Agriculture and Farmer's welfare, Government of India. The institute engaged in promotion of environmentally sustainable and bio-intensive Plant Health Management practices



in diverse and changing agro-climatic conditions, making awareness of Plant Biosecurity and quarantine methods, promoting responsible use of pesticides along with strengthening mechanisms for quality control and regulations, through capacity building programmes, besides providing inputs for policy formulation.

The concept promoted by NIPHM on of Agro Ecosystem Analysis (AESA) based Plant Health Management in conjunction with Ecological Engineering (EE) for Pest Management to promote environmentally sustainable plant health management practices to reduce excessive reliance on chemical pesticides is very popular. In this regard, NIPHM is conducting systematically planned capacity building training programs and creating a pool of master trainers by training them on various aspects of Plant Health Management strategies. The modules of various programs are prepared to meet the requirements and hands-on experience of stake holders on issues such as Good Agricultural Practices (GAPs), AESA, On-Farm Production of Biological Control Agents etc., for taking forward the bio-intensive pest management at farmer level.

In the past, scores of exotic pests have gained entry, established, became invasive, and got naturalized causing significant damage to food production and environment. The most damaging loss in the World history was the Great Bengal Famine of 1942 in India, where more than 10 million people died due to starvation. It is the largest known human loss due to a plant disease world over and was mainly attributed to the leaf spot/blight caused by brown leaf spot of rice (*Drechslera oryzae*). The report of wheat blast (*Magnaporthe oryzae* pathotype *tritici* (MoT)) in few pockets of border districts-Nadia and Murshidabad of west Bengal from Bangladesh during 2017 is a major concern to the sub-continent, and similarly, entry of fall army worm *Spodoptera frugiperda* during 2018 in to south India, and spreading to all parts of India in a very short span causing serious threat to food and poultry production. It is because of these issues that biosecurity has emerged as one of the most urgent issues facing countries requiring them to foster policies and develop technological capabilities to prevent, detect, and respond to such threats. Pest surveillance, pest diagnosis, pest incursion management, pest reporting, pest risk analysis, phytosanitary treatments play a critical role in biosecurity management. Realizing the growing importance and need for strengthening the agriculture biosecurity, NIPHM

bestowed with the responsibility of creating awareness, enhance human resource capacity in managing Biosecurity threats among various stake holders.

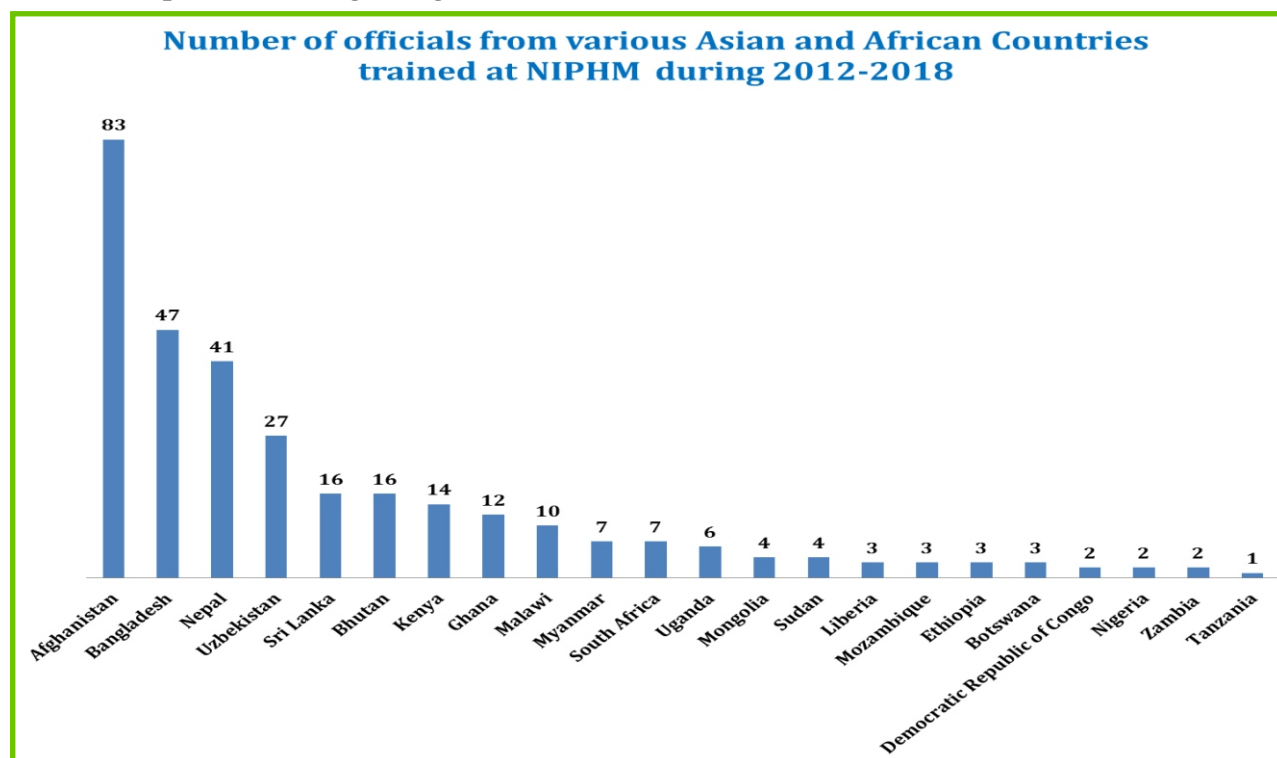
As the pesticides play major role in food production, NIPHM conduct training programs to officers in regulation, on quality control, regulatory inspections, for promoting safe use of pesticides for food safety, besides training programs to all stake holders on safe application of pesticides.

Building Capacities of officials from 22 countries

Since, 2008, NIPHM trained more than 10,000 officials, 6,000 farmers across India in various aspects. In view of the effectiveness and usefulness of training programs conducted by NIPHM, various International agencies and governments requesting NIPHM since 2013 for conducting similar programs / tailor-made programs for the officials of Asian and African Countries, and accordingly NIPHM conducted training programs in the following focused areas:

- Plant health management
- Pest risk analysis
- Plant quarantine and phytosanitary measures
- Bio-security and incursion management
- Regional plant health systems
- Plant disease diagnosis
- Pest surveillance
- Pesticide Residues and Food safety

A total 24 capacity building programs conducted training 313 government officials from 22 countries viz., Afghanistan, Bangladesh, Nepal, Uzbekistan, Sri Lanka, Bhutan, Kenya, Ghana, Malawi, Myanmar, South Africa, Uganda, Mongolia, Sudan, Liberia, Mozambique, Ethiopia, Botswana, Democratic Republic of Congo, Nigeria, Zambia and Tanzania.



USAID and Ministry of External Affairs (MEA), Government of India designed a program named as Feed The Future India Triangular Training (FTF ITT) Program which was launched on 25th July, 2016 at New Delhi. Under this mission, NIPHM has conducted three training programs viz., “Plant Health Management Technologies and Approaches” during 04-18 September, 2017, “Plant Bio-Security and Food Safety” during 03-17 March, 2018, and “Plant Health Management, Bio-Security and Quarantine” during 27th November to 11th December, 2018, in which 67 executives representing Asian and African countries were trained on Plant Health Management Concepts and Practices based on Agro Ecosystem Analysis and Ecological Engineering, Biological Pest Management and Bio-fertilizers use, International Regulatory Framework and SPS agreement, Pest risk analysis and Phytosanitary treatments, and food safety.

Success Stories Implementation of learning

The following are the success stories sent by officials, where the technologies / techniques imbibed from NIPHM are successfully implemented, spreading across stake holders

Master trainer on “Responsible Use of Pesticides”

Undergone training on “Plant Bio-Security and Food Safety” during 03rd-17th March, 2018 at NIPHM.

I have been assigned to support our Environment and Climate Change Unit and trained Extension Agents and Farmers in two districts (South Tongu in the Volta Region and Zabzugu in the Northern Region) for the implementation of a new project. This is in line with one of the recommendations after my training at NIPHM; to mainstream training on the responsible use of agro-chemicals into projects and programs at all levels. The first set of training was organized for 40 persons including twenty (20) lead farmers and 13 Agricultural Extension Agents (AEAs) from ten communities in the South Tongu District. Additionally, seven (7) other senior agricultural professionals benefitted from the training programme. The knowledge of participants has been enhanced on being responsible in the handling of agro-chemicals. Practical sessions were held as well as discussions in respect of the appropriate ways of spraying chemicals on the field.



George Prah,
Deputy Director,
Directorate of Crop Services,
Ministry of Food and
Agriculture, Ghana.



Popularization of low cost fruit fly bottle trap technology

Undergone training on “Plant Bio-Security and Food Safety” during 03rd-17th March, 2018 at NIPHM.

I have learned the low cost fruit fly trap and lure preparation at NIPHM, and the same was implemented and tested in farmers fields. It was very effective, and for large scale use of lures, I have conducted training to women farmers in injel district (this district distance is from city 15KM). After several sessions, with women in the cultivation in Injel district prepared the lure successfully, for supply to their farms and neighboring farms. The learnings at NIPHM made very high impact in orchard farmers.



Basir Ahmad Tabib,
Agriculture Plant
Protection Manager,
Afghanistan



Community Mobilization / Sensitization on Fruit Fly Control at Uganda

Undergone training on “Plant Bio-Security and Food Safety” during 03rd-17th March, 2018 at NIPHM.

Fruit production under the program of Operation Wealth Creation (OWC) was the first priority of the Government of Uganda which has a target of increasing income of the farmers and uplifting households to a middle income class of earning 20 million in the year 2020. This has not been achieved due to big challenges of fruit fly infestation of fruits, leading to total loss of up to 100% total loss in fruit yields, affecting the growth of local industry. She conducted sensitization meetings with the district officials, Radio Talk show on low cost fruit fly bottle trap in 3 local Radio Station and demonstration of fruit fly lure preparation training. She trained all the 22 Crop Extension Staff



Ms. Badaru Gertrude,
District Agricultural
Officer,
Arua District Local
Government,
Ghana.

from the Sub counties and trained them on low cost fruit fly lure preparation. Through radio talk show, she had reached to 2,500 farmers and she had received their feedback through phone call and direct contacts. She had also conducted demonstration to many farmers and trained farmers have started using the low cost bottle trap and fruit fly lures. Many farmers are able to adopt the low cost simple technique of preparation of fruit fly lure and locally available traps to reduce male fruit fly population and increased fruit production and fruit quality for better markets. Fruit farmers are able to increase fruit production to feed the upcoming factories in the region.



Establishment of Ecological Engineering Based Tactics for Rice insect pests

Undergone training on “Plant Health Management Technologies and Approaches” during 04th – 18th September, 2017 at NIPHM

Brown Plant Hopper (*Nilaparvata lugens*), Yellow stem borer (*Scirpophaga incertulas*) and Golden Snail (*Pomacea canaliculata*) are the major problems in production of rice in our area. At NIPHM, I learned and understood the ecological engineering in rice which helps to suppress the pest population without using chemicals. I also visited the Ecological engineering rice field that is being maintained at NIPHM. Ecological engineering for pest management relies on the use of cultural techniques to effect habitat manipulation and to enhance biological control. Protection of natural enemies is one of the important aspects in ecological engineering. Experiments were planned to be conducted at department of Agricultural Research, Entomology Field Yezin, Nyapyitaw, in Myanmar. This research helps to analyse the crops that can be grown around the paddy fields in our area. Extension workers and Small farmers are encouraged to go for ecological engineering. Rice yield will be enhanced by the end of three years after the use of ecological engineering and also it is expected to control the population levels of Brown plant hopper as a result of Ecological Engineering..



Ms Htat Htat Nay Win,
Research Technician,
Ministry of Agriculture,
Livestock & Irrigation,
Myanmar.

On-farm Production of Mycorrhiza

Undergone training on “Plant Health Management Technologies and Approaches” during 04th – 18th September, 2017 at NIPHM

I am Charles Mamati Lusweti, Chief Agricultural Officer working in Ministry Of Agriculture Livestock and Fisheries at Nairobi, Republic of Kenya. I have attended international Training Program on “Plant Health Management Technologies and Approaches” from 04th – 18th September, 2017 at National Institute of Plant Health Management (NIPHM) as a part of Feed The Future India Triangular Training (FTF ITT). The training was very interesting and I have learnt many new technologies. Among various aspects, I was very attracted to the production of Mycorrhiza. Mycorrhizal fungi allow plants to draw more nutrients and water from the soil. They also increase plant tolerance to different environmental stresses. These fungi play a major role in soil aggregation process and stimulate microbial activity. According to the plant species and to the growing practices and conditions, mycorrhizae provide many benefits to the plants and environment. I have established a unit here and I am encouraging the farmers here to use the biofertilizers for soil enrichment. Procedure for isolation of mycorrhiza by decanting method was also learnt and I am in the process of establishment of small laboratory for using this method of isolation



Charles Mamati Lusweti,
Chief Agricultural Officer,
Ministry Of Agriculture
Livestock and Fisheries,
Nairobi, Republic of Kenya



Promotion of biological control agents against important crop diseases

Undergone training on “Plant Health Management Technologies and Approaches” during 04th – 18th September, 2017 at NIPHM

Beans are a major food and cash crop for the majority of Ugandan farmers and consumers which accounts for 7% of national agricultural GDP. However, bean productivity is low in the country due to both biotic and abiotic stresses. Low productivity of Common bean (*Phaseolus vulgaris* L;) and Sunflower in West Nile is because of severe incidence of root rot (*Pythium* root rot) and Damping off (*Pythium* spp). After attending the training programme at NIPHM, I understood that *Trichoderma* spp can be used successfully to decrease the damage caused by these two diseases and this *Trichoderma* can be produced in large scale with very low investment. District Production & Marketing Department Staff of Yumbe district,



Charles Palms Ezati,
Project Assistant,
Uganda Multi-Sector, Food
Security and Nutrition
project, MAAIF, Uganda

Sub-county Agricultural Officers of the two districts and Commercial Farmers in the district are the target groups who are trained. Training is conducted to enhance the capacity of the target group. The trainees are encouraged to successfully control fungal diseases by using Trichoderma and the major target is to decrease the yield loss due to fungal diseases. The establishment of the on farm production unit is in process and the officers are also asked to encourage the farmers to decrease the use of chemicals to enhance the growth and to protect the Trichoderma species that is already present in the soil.

Summary

NIPHM is promoting environmentally sustainable crop management practices, focusing on agro-ecosystem analysis, bio-security threats and pesticide management for food safety. The Institute developed training modules with more emphasis on hands-on practical experience to trainee officers, in state-of-the-art training and accredited pesticide testing laboratories (ISO/IEC 17025). The programs at NIPHM are very well accepted many countries and organizations, and hence, during last six years NIPHM became the “one-stop destination for capacity building of Asian and African officials on plant health management and biosecurity”. A total 24 capacity building programs conducted training officials from 22 countries viz., Afghanistan, Bangladesh, Nepal, Uzbekistan, Sri Lanka, Bhutan, Kenya, Ghana, Malawi, Myanmar, South Africa, Uganda, Mongolia, Sudan, Liberia, Mozambique, Ethiopia, Botswana, Democratic Republic of Congo, Nigeria, Zambia and Tanzania.

Exhibition

Exhibition

NIPHM always participates actively in exhibitions. Krishi Kumbh International Conference exhibition held during October 26th to 28th 2018 at Indian Institute of Sugarcane Research (IISR), Lucknow. Faculty NIPHM explained/demonstrated NIPHM technologies and activities to the visitors including farmers. A Total of 532 visitors have registered their names in NIPHM visitors/ Farmers register. Similarly, NIPHM has participated in exhibition on "Farmers Day" organized by Indian Institute of Rice Research, Hyderabad on 03.11.2018. Officers /& scientists of various institutes and almost 60 farmers have visited the NIPHM stall with their queries.



Training program for Uzbekistan Officials

An exclusive International training on “Detection and Diagnosis of pests, Pest Risk Analysis and Fumigation” was organized for Uzbekistan officials from 5th to 19th November, 2018 and it is funded by Indian Technical and economic Cooperation (ITEC) programme, Ministry of External Affairs. This fifteen days training is planned to impart skills in the areas of plant quarantine, pest risk analysis, detection and diagnosis of pests and phytosanitary measures. Twenty seven Uzbekistan officials attended the training and they were trained in 3 main areas viz., detection and diagnosis of pests, pest risk analysis and fumigation.



The inaugural session was graced by Smt. G. Jayalakshmi, I.A.S Director General, NIPHM. The course director Dr. Alice, Director (Plant Biosecurity) welcomed the dignitaries, participants and faculty and she briefed about the training program.

The participants learnt about plant quarantine system, phytosanitary terminology with reference to plant quarantine, pest risk analysis and phytosanitary treatments, diagnostic protocols for regulated pests, their general and specific requirements, online sources available in the internet for detection and identification of pests and seed borne pathogens of quarantine significance.



The valedictory session was graced by the Chief Guest Dr. B. Bala Bashkar, I.F.S Joint Secretary, Ministry of External Affairs, Smt. G. Jayalakshmi, I.A.S Director General, NIPHM and Mr. Ved Prakash Singh, I.F.S Under Secretary, Ministry of External Affairs. Director General, NIPHM delivered the key note address and the special address was delivered by the Chief Guest Dr. B. Bala Bashkar.

Feed the Future India Triangular Training (FTF- ITT) Program

The 3rd Feed the Future India Triangular Training (FTF ITT) program on “Plant Health Management, Biosecurity and Quarantine” was conducted in collaboration with MANAGE from 27th November – 11th December, 2018 at NIPHM under Feed the Future India Triangular Training (FTF-ITT) of USAID and Ministry of External Affairs, Government of India. Twenty participants representing Afghanistan, Kenya, Liberia, Malawi, Myanmar, Mongolia, Mozambique, Sri Lanka, Tanzania and Uganda were participated in the training program. The program was aimed to educate the participants in the areas of AESA and Ecological Engineering based Plant Health Management, International Regulatory Framework and SPS agreement, pest risk analysis and phytosanitary treatments, Food Safety Regulations, Visit to National, International Institutes and farmers' fields to get exposure on issues and strategies related to plant health management and Identify country specific pest problems and their management options under selected cropping systems of Asian countries



The training program was participatory in nature, which included lectures, group discussions, case studies, and hands on experience and field visits. Each participant was expected to contribute ideas and take part in group activities thereon forming small groups to undertake various tasks allotted under the training. Although, experiential learning methodology was effectively incorporated in the program, the participants were expected to emulate learnings through group interaction, field visits and interactions with domain experts.



In the valedictory session, the chief guest was Smt. Vasudha Mishra, Additional Secretary, Ministry of Agriculture and Farmers Welfare. The guest of honour, Smt. Usha Rani, Director General, MANAGE and Smt. Jayalakshmi, Director General, NIPHM were presided over the function.



Training program for Nepal Officials

A five days international training programme on “Phytosanitary measures for export of medicinal & aromatic plants to India” exclusively for Nepal Quarantine Officials has organised at NIPHM from 17th to 21st December, 2018. The training program was funded by GIZ, New Delhi. Total Seven (7) officials have participated in the training and get acquainted with all quarantine related aspects, procedures, regulations & phytosanitary treatments. The participants was also visited to export pack-house for chives, Central Institute of Medicinal and Aromatic Plants and Plant Quarantine station, Hyderabad and learnt about phytosanitary measures and good agriculture practices for medicinal and aromatic plants.



Australian Fumigation Accreditation Scheme (AFAS) training

It is much important that phytosanitary treatment providers onshore and offshore understand and follow the phytosanitary requirements of the importing country. Department of Agriculture and Water Resources (DAWR), Australia with the support of Australia's Government Partnership for Development Program (GPFD) has organised a refresher training programme for fumigators and auditors under The Australian Fumigation Accreditation Scheme (AFAS), at NIPHM from 13.11.2018 - 15.11.2018 to ensure on-going compliance of registered MB treatment providers with the requirements of the AFAS MB fumigation standard. Twenty four (24) participants attended the programme among which 14 trainees represented Directorate of Plant Protection, Quarantine & Storage (DPPQ&S), while 10 members represented Private Industry.

G. Jayalakshmi, IAS, Director General, NIPHM, Hyderabad chaired the session joined by Dr. Nora Galway, Counselor (Agriculture), Australian High Commission; Mr Gordon Weinert and Mr. Stephen Peios, DAWR, Australia; Ms. Sweta Prabhakar, Senior Research Officer, Australian High Commission and Dr. Alice R.P. Sujeetha, Director-Plant Biosecurity.



Capacity Building Training Programmes on Plant Biosecurity

The exponential expansion of trade and the speed at which the agricultural products are moving around the globe, coupled with the removal of quantity restrictions in post-WTO era, the chance of any pests to move to hitherto unrecorded areas are high. Concern about the exotic and invasive pests is well reflected in the World Trade Organization (WTO)'s Agreement on Sanitary and Phytosanitary Measures, International Plant Protection Convention and Convention on Biological Diversity. The division has organized following training programmes during the month of October to December, 2018.

Sl. No	Name of the Programme	Duration (Days)	Date	
			From	To
1	Orientation Training Programme for Phytosanitary Certificate (PSC) Issuing Authority	5 Days	08.10.2018	12.10.2018
2	Fruit Fly: Surveillance & Management	5 Days	29.10.2018	02.11.2018
3	Pest Surveillance	5 Days	12.11.2018	16.11.2018
4	Regional Plant Health System Analysis	15 Days	26.11.2018	10.12.2018
5	Pest Risk Analysis	5 Days	17.12.2018	21.12.2018
6	Urban Integrated Pest Management (UIPM)	15 Days	04.12.2018	18.12.2018
7	Vertebrate Pest Management (Wild boar, Monkey and Birds)	3 Days	22.10.2018	24.10.2018
8	Training cum workshop on Rodent Pest Management	2 Days	04.10.2018	05.10.2018
9	Rodent Pest Management in store grain ware houses	5 Days	26.11.2018	30.11.2018



Capacity Building Training Programmes on Plant Health Management

Plant Health Management has great importance in sustainable agriculture and now-a-days much significance is being given to the eco-friendly management of insect pests and plant pathogens. Hence, the subduing of pest population under this concept is mainly by the use of natural enemies and also by bio-fertilizers which helps in the improvement of soil health also. The newly introduced pest management concepts like Ecological engineering and AESA based Plant Health Management are also given much importance. The training programmes organised by the division are designed to include the non-chemical pest management strategies for the management of insect pests and diseases of crops. The Following training programmes were organized during –October to December 2018

Sl. No	Name of the Programme	Duration (Days)	Date	
			From	To
1	Bio intensive approaches for Plant Health Management –TN LAMP	5 Days	01.10.2018	05.10.2018
2	On farm production of biocontrol agents and microbial biopesticides	10 Days	03.10.2018	12.10.2018
3	Good agricultural practices (GAP)	5 Days	22.10.2018	26.10.2018
4	Induction training programme on ‘Integrated Pest Management’ for DPPQ&S officials	21 Days	25.10.2018	14.11.2018
5	Orientation –cum capacity building programme for the facilitators/ coordinators of DESAI	2 Days	30.10.2018	31.10.2018
6	Role of Agroecosystem analysis(AESA) and EE in pest management	5 Days	12.11.2018	16.11.2018
7	Refresher training programme on “On-farm production of bio-control agents and Microbial bio-pesticides” for established Agripreneurs	4 Days	26.11.2018	29.11.2018
8	Production protocol of Trichogramma and EPF’s	3 Days	19.12.2018	21.12.2018
9	Integrated Soil Nutrient and Rhizosphere Management	9 Days	12.12.2018	19.12.2018



Capacity Building Training Programmes on Plant Health Management

The following farmers training programmes were also organised during October to December, 2018.

Sl. No	Name of the Programme	Duration (Days)	Date	
			From	To
1	Training on 'Entomopathogenic nematodes for the biological control of white grubs in Sugarcane' for the farmers of Kolhapur district Maharashtra	3 Days	03.10.2018	05.10.2018
2	On-Farm production of bio-control agents and microbial bio-pesticides for farmers of Palacode, Dharmapuri District, Tamil Nadu	1 Day	12.11.2018	
3	On-Farm production of bio-control agents and microbial bio-pesticides for farmers of Kanchipuram, Tamil Nadu under TN-IAMP project at STAMIN, Kudumiyamalai, Tamil Nadu	3 Days	12.11.2018	14.11.2018
4	On-Farm production of bio-control agents and microbial bio-pesticides for farmers of Kanchipuram, Tamil Nadu under TN-IAMP project at STAMIN, Kudumiyamalai, Tamil Nadu	3 Days	15.11.2018	17.11.2018
5	On-Farm production of bio-control agents and microbial bio-pesticides for farmers	3 Days	26.11.2018	28.11.2018
6	Tamil Nadu farmers training program on bio control agents	3 Days	12.12.2018	14.12.2018
7	On farm production of biocontrol agents-FCV Tobacco Farmer training	3 Days	04.12.2018	06.12.2018
8	On farm production of biocontrol agents-FCV Tobacco Farmer training	3 Days	29.11.2018	01.12.2018
9	On farm production of biocontrol agents-APMAS NGO Madhanapalli	3 Days	26.12.2018	28.12.2018



Capacity Building Training Programmes on Pesticide Management

The Pesticide Management Division continuously makes efforts to organize various capacity building programs in order to provide awareness among all the stakeholders on the use of pesticides besides conducting the mandated training programs viz. Pesticide Formulation Analysis, Inspection, Sampling and Prosecution Procedures under Insecticide Act, 1968 etc. for the extension officials of State and central Agriculture departments so that the use of Pesticides can be reduced significantly. The following training programs were conducted during October to December, 2018:

Sl. No	Name of The Programme	Duration (Days)	Date	
			From	To
1	Method Validation in Pesticide Residue Analysis and Measurement of Uncertainty	5 Days	22.10.2018	26.10.2018
2	Refresher Program on Formulation Analysis of New Pesticides molecules	10 Days	23.10.2018	01.11.2018
3	Testing Physicochemical properties of Pesticide formulations	5 Days	12.11.2018	16.11.2018
4	Laboratory Quality System Management and Internal Audit as per ISO/IEC 17025:2017	5 Days	03.12.2018	07.12.2018
5	Method Validation in Pesticide Formulation Analysis (PFA) and Measurement of Uncertainty	5 Days	10.12.2018	14.12.2018
6	Inspection, Sampling and Prosecution Procedures under Insecticide Act, 1968 (ISPP)	5 Days	17.12.2018	21.12.2018



Diploma in Agri-Inputs



A one year “Diploma in Agri-inputs” was initiated during December, 2017, in view of the regulatory requirements for input dealers as per the amendment to Fertilizer (Control) Order, 1985 (Notification dated 10th October, 2015) and Insecticide Rules, 1971 (notification dated 1st February 2017). The program was initiated to educate the input dealers in the areas of science based recommendations and regulations on use of agri-inputs etc. and also to impart knowledge on critical issues such as weather, soil health, different agronomic practices, pests and management methods, legislation, acts and rules, bio-intensive methods etc.



The first batch was commenced on 4th December, 2017 with 17 Telugu speaking Agri-input dealers from Telangana and Andhra Pradesh. The mode of the program broadly outlined in-house contact classes of two weeks at the beginning, monthly contact classes and one week contact classes during the last week of the program, home assignments, practical sessions, field visits and other laboratory demonstrations etc. The participants were actively involved in all the above said activities and the performance of these participants were evaluated

based on the written test, presentations, submission of home assignments and attendance. The program was ended on 04th December, 2018 and certificates were awarded to all the participants after successful completion.

Capacity Building Training Programmes on Plant Health Engineering

Application of pesticides continues to play a significant role in reducing crop losses due to pests even under IPM as a last resort. The success of pest management operations depends on proper technique of application of pesticide and the equipment used. Selecting the right equipment for pesticide application is vital for successful pest control to ensure safe and judicious use of pesticides. In view of this, Plant Health Engineering Division organized following training programmes during October to December, 2018:

Sl. No	Name of The Programme	Duration (Days)	Date	
			From	To
1	Training on Pesticide Application Techniques and Safety Measures	5 Days	26.11.2018	30.11.2018
2	Training on 'GIS approach in Soil, Water and Plant Health Management	5 Days	10.12.2018	14.12.2018
3	In-plant training for B. Tech Agricultural Engineering students	90 Days	01.07.2018	30.10.2018
Off Campus				
1	Farmers training on Pesticide Application Techniques and Safety Measures	1 Day	15.10.2018	



Training Programme on “Invasive Rugose Spiraling Whitefly”

Training Programme on “Invasive Rugose Spiraling Whitefly” was organized in Kommugudem Village, West Godavari district in Andhra Pradesh on 16.11.2018 in collaboration with KVK, Dr. YSR Horticulture University, West Godavari, Andhra Pradesh. About 150 progressive farmers and agriculture and Horticulture officers and other department officials have attended the meeting. Field visits were made followed by interactive meeting with farmers and other stakeholders at kommugudem village about the management strategies for rugose spiraling whitefly in coconut and oil palm.



Post Entry Quarantine at Assam

NIPHM organized an awareness programme on “Post Entry Quarantine” in collaboration with Assam Agricultural University, Jorhat, Assam on 27.11.2018 at AAU, Jorhat, Assam. Total 41 participants have attended. Technical session was preceded with plant quarantine system & various International and National regulations involved. Further, an exclusive session on import procedures for propagative material including germplasm, and Post Entry Quarantine (PEQ) facility overview, its types,



responsibility of importers and inspection authorities was accomplished. The main and important component standard operating procedure (SOP) was dealt in detail which includes open and closed PEQ facility, technical assessment involved in it, physical examination of the facility, PEQ certification, and inspection of propagative material at different stages and final release.

Stored Grain Pest Identification and Management at Andhra Pradesh

One day training on “Stored Grain Pest Identification and Management” to the farmers of Garikapadu, Guntur Distt., Andhra Pradesh was organised on 29.11.2018. The programme was inaugurated by Dr. Prasanna Bhanu, Principal Scientist & Head, KVK, Garikapadu in the presence of NIPHM faculty. Faculty has elaborated the various aspects to the farmers on rodent behaviour, mode of damage in agriculture and storage & management practices to regulate the rodent population.



Rodent Pest Management at Erode District

One day training programme on Rodent Pest management was organized at Gobichettypalayam, Erode District, Tamil Nadu on 12.10.2018. The programme was held at Gobichettypalayam in collaboration with KVK, MYRADA. Faculty of NIPHM explained the farmers on the ethology of rodents in agricultural crops, storage places and houses, different species of rodents, damages and diseases caused by them, procedure of poison bait preparation, application, importance of bait stations and effective management of rodents.

Awareness camp on “Responsible use of pesticides” conducted at Bhatinda, Punjab

An awareness camp was conducted on “Responsible use of pesticides” in Bhatinda region 05.10.2018 in association Punjab Agricultural University. Dr. Suri KS, Senior Scientists and other KVK scientists participated in the programme. Around 520 farmers have attended the programme. Shri. Gurpreet Singh Kangar, Cabinet Minister, Punjab and Dr. Jasbir Singh Bains, Director Agriculture(Punjab) were invited as Chief guests of the programme.



NIPHM scientists addressed farmers on key points with respect to responsible use of pesticides and emphasized the non-toxic control measures of pest management particularly use of bio control agents for the management of pests and urged the farmers to use less toxic, recommended pesticides with correct dose.

“Plant Quarantine Regulations for Custom officials” at NACIN, Chennai

NIPHM in collaboration with National Academy of Customs, Indirect taxes and Narcotics (NACIN), Chennai organized a two days off-campus training programme on “Plant Quarantine Regulations for Custom officials from 10th to 11th October, 2018. Dr. Alice Sujeetha, Director –Plant Biosecurity and Dr. C S Gupta, Assistant Scientific Officer handled the training programme, at NACIN, Chennai. The training was attended by 62 participants from Custom office – Chennai, Tuticorin, Cochin, Bangalore and Trichy. The training was inaugurated with lightening the lamp and an introductory remark and welcome address by Sh. Vasa Seshagiri Rao, IRS, Principal Addl. Director General, NACIN. Inaugural address was delivered by Smt. G. Jayalakshmi, IAS, Director General, NIPHM. In the training program participants learnt about the key role of custom officials during the trade, importance of plant quarantine and biosecurity, regulations in trade of wood packaging material and ISPM 15.



**Annual workshop of the DAC project
“Study on impact of indiscriminate use of chemical fertilizers and pesticides”**

Sixth Annual workshop of the DAC project “Study on impact of indiscriminate use of chemical fertilizers and pesticides” was organized at BCKV, Kalyani, West Bengal on 30th & 31st October, 2018. Smt. G. Jayalakshmi, IAS, Director General, NIPHM reviewed the implementation and progress of the project work. Thirty participants representing Principal Investigators & Co-Principal Investigators from SAU's and SHU, NIPHM and BCKV officials have attended the Annual workshop.



Rodent Pest Management

Two days training cum workshop on rodent pest management was conducted on 04.10.2018 and 05.10.2018 at NIPHM. In the workshop 27 officers from Food Corporation of India, Central Warehousing Corporation, Professor Jayashankar Telangana State Agricultural University (PJTSAU) were participated. During the training participants has given with through knowledge on Rodent ethology, breeding profile and species identification, chemical and non-chemical rodent management. Experts from Agricultural and Warehousing sector were invited for guest lectures and panel discussion on various issues related to rodent pest management were noted.



National Women Farmers Day

Women Farmers Day was organized on 15th October, 2018 at NIPHM, Rajendra nagar under the Chairmanship of the Smt. G. Jayalakshmi, Director General, NIPHM and Ms. Pousami Basu, I.A.S, CEO, SERP attended as guest of honour.

About 85 women farmers from different parts of Telangana and 6 officials from SERP have participated the meeting.

The Director General explained about the role of women in agriculture and the expected productivity boost and second green revolution with the participation of women in agriculture. Five women farmers viz., Smt. Bala Narsamma for Non Pesticide management, Smt. E. Santamma for Botanical pesticides, Smt. Vimalamma for Organic farming, Smt. K. Karuna for Biocontrol Production Unit and Smt. Anjamma for forming FPOs were felicitated.



World Food Day

The Institute also celebrated World Food Day 2018 on 16.10.18 as per the theme proposed by FAO for this year “Our actions are our future, A #zero hunger world by 2030 is possible. The World Food Day was celebrated with open quiz competition to all faculties and staff. To create awareness among the employees about the World Food Day theme, Shri. P. E. Prasad, General Manager Retd., Central Warehousing Corporation (under the administrative control of Ministry of Food, Consumer Affairs and Public Distribution) was invited as a guest to deliver the theme speech.



Women in Agriculture Day

Women in Agriculture Day was celebrated on 4th December, 2018 in mini auditorium, NIPHM. Programme was inaugurated by Ms. Pausumi Basu, IAS, CEO, SERP and Mrs. G. Jayalakshmi, IAS, Director General with lighting the lamp. A total 40 women farmers from different Famers producer organizations viz. Davur, Errebally & Nagalgida and Karimnagar were participated. All the women farmer participants have joined the event with full enthusiasm and energy. NIPHM received the three nominations each from NIRD & NABARD and has felicitated the successful women in agriculture for their contribution in their respective field. To acknowledge the work of women in the field of agriculture, all the nominated women farmers were being appreciated for their duty and have been honored by our chief guest Smt. Pausumi BASU, IAS, CEO, SERP & G. Jayalakshmi IAS, Director General, NIPHM.



Observance of 'Swachhta Pakhwada'

NIPHM has observed 'Swachhta Pakhwada' from 16th to 31st December, 2018.

The following activities were carried out during the above period:

Water Tanks Cleaning Work at MG Block, LBS Block, Old and New Hostels, Cleanliness Drive at NIPHM Office, Residential Quarters by conducting Shramdhan Activity, Village level Swachhta Rallies at nearby Villages by all Divisions, Cleanliness Drive undertaken by all staff of NIPHM in their respective work areas (individually at Division Level), Tree Plantation at NIPHM Office Premises, Painting and Quotation / Slogan writing competition, Cleanliness Drive organized at Weekly Vegetable Market near NIPHM by all Divisions, Organised Seminar to farmers at NIPHM Office, Organised Symposiums/Awareness Programmes for proper disposal of insecticide containers at a nearby village by all Divisions. The closing ceremony of 'Swachhta Pakhwada' celebrated on 31-12-2018 with a recap of all the activities carried out during the period. Ms. G. Jayalakshmi, IAS, Director General, NIPHM has honoured the Housekeeping / Sanitation workers who are engaged in cleaning activity and distributed the prizes to the winners of painting and slogan writing competition.



11th Foundation Day Celebrations.

NIPHM has completed 10 years by 24th October 2018. Having completed 10 years as a promoter of Capacity Building for Environmentally Sustainable Agriculture, NIPHM has observed its 11th Foundation Day on 25th October 2018.

Dr. B Rajender, IAS, Joint Secretary (PP), Ministry of Agriculture & Farmers Welfare, DAC &FW, Govt. of India, Chief Guest for the occasion has inaugurated the Exhibition in the august presence of Ms. G Jayalakshmi, IAS, Director General, NIPHM and Mr. Rajesh Malik, Director (PP), DAC&FW. The Low Cost NIPHM technologies were demonstrated to the farmers and open day was declared for school students to promote scientific temperament among them.



Observance of Vigilance Awareness Week

The 'Vigilance Awareness Week' celebrations began by administering the Pledge by Ms. G. Jayalakshmi, IAS, Director General, NIPHM to all officers and staff of NIPHM on 29-10-2018. As a part of the programme, Essay Writing competition was conducted on 30-10-2018 and Debate competition was conducted on 31-10-2018 on the theme "Eradicate corruption – Build a new India". On 02-11-2018 a lecture was delivered by Shri. A. Mohan Kumar, IRS, Additional Committer, Income Tax Department, Hyderabad on the theme "Eradicate corruption – Build a new India" as part of Vigilance Awareness. The facts of corruption and ways to counter it were exhaustively dealt upon. Ms. G. Jayalakshmi, IAS, Director General, NIPHM has addressed the Staff and Trainees on the occasion and appealed to eradicate corruption.

तकनीकी शब्दावली

सेवानिवृत्ति

Acquired resistance :	अधिग्रहण प्रतिरोध
Adaptation :	अनुकूलन
Breeding :	प्रजनन
Chemical control :	रासायनिक नियंत्रण
Crop Harvesting :	फसल कटाई
Dehydration :	निर्जलीकरण
Efficiency :	क्षमता
Eradication :	उन्मूलन
Fungicide :	कवकनाशी
Organic farming :	जैविक खेती

श्री डी नागया, चौकीदार की सेवानिवृत्ति दिनांक ३०.११.२०१८ को इस संस्थान से हुई। इस संस्थान में दिनांक १०.०३.१९८८ को नियुक्त हुए तथा ३० वर्ष ८ महीना २० दिन अपनी सेवाएं प्रदान की।



श्री जे मल्लेश, चौकीदार की सेवानिवृत्ति दिनांक ३१.११.२०१८ को इस संस्थान से हुई। इस संस्थान में दिनांक १६.०३.१९८८ को नियुक्त हुए तथा ३० वर्ष ९ महीना १५ दिन अपनी सेवाएं प्रदान की।



संस्थान इनकी सेवानिवृत्ति पर इनके सुखद भविष्य एवं स्वस्थ जीवन की कामना करता है।

रावस्वाप्रसं में राजभाषा हिंदी के क्रियान्वयन से संबंधित क्रियाकलाप

दिनांक 12-11-2018 को वर्ष 2018-19 हेतु राजभाषा कार्यान्वयन समिति (राकास) की तृतीय बैठक का आयोजन किया गया। उक्त बैठक श्रीमती जी.जयलक्ष्मी, भा.प्र.से., महानिदेशक, एनआईपीएचएम की अध्यक्षता में की गई। बैठक में महानिदेशक के समक्ष जुलाई-सितंबर, 2018 की तिमाही हिंदी प्रगति रिपोर्ट प्रस्तुत की गई। उन्होंने रिपोर्ट की समीक्षा करते हुए संस्थान में राजभाषा अधिनियम की धारा 3(3) के पूर्णतः अनुपालन किये जाने के निदेश दिये।

उन्होंने दस्तावेजों के द्विभाषीकरण के तहत निविदा प्रपत्र, निविदा सूचना एवं नियम एवं शर्तों को हिंदी में अनुवाद कर हिंदी में निविदा प्रकाशित करने हेतु निदेश दिये। साथ ही उन्होंने यह भी कहा कि तिमाही हिंदी प्रगति रिपोर्ट में भरे जाने वाले कार्यालय को हिंदी में प्राप्त पत्रों एवं इसके प्रति दिये गए जवाबों का जांच कर उचित आंकड़े ही शामिल किये जाएं। किसानों के हित के लिए 'मित्र कीटों पर कृषक मार्गदर्शिका' हिंदी में तैयार की गई। 'शहरी घरों में चुहों के प्रबंधन' से संबंधित सामग्री का भी हिंदी में अनुवाद किया गया।

महानिदेशक के निर्देशानुसार, राजभाषा हिंदी के प्रभावी क्रियान्वयन एवं प्रचार-प्रसार हेतु कर्मचारियों के लिए प्रति सप्ताह बुधवार को हिंदी कक्षा का आयोजन किया जा रहा है तथा हिंदी में उनके समझ को विकसित करने तथा अभिव्यक्ति को व्यक्त करने के उद्देश्य से हिंदी वृत्तचित्र फिल्म का प्रदर्शन किया जा रहा है। संस्थान के कार्यालयीन कामकाज में राजभाषा हिंदी के उपयोग को बढ़ावा देने तथा कर्मचारियों की सुविधा के लिए पारिभाषिक शब्दावली (अंग्रेजी से हिंदी) तैयार की गई।

Chief Editor

Smt. G. Jayalakshmi, IAS, DG

Executive Editor

Dr. Ch. Sreenivasa Rao, Director-PM

Editor

Dr. C. S. Gupta, ASO (PP)

Designed by: Mr. G. Mahesh, JRF (MM & NW)

Published by:

Director General

National Institute of Plant Health Management (NIPHM)

Department of Agriculture, Cooperation & Farmers Welfare,

Ministry of Agriculture & Farmers Welfare, Govt. of India

Rajendra Nagar, Hyderabad - 500 030, Telangana, India.

Tele Fax: +91 40 24015346; niphm@nic.in